

Public Comments on Adaptive Protocols for Lake Okeechobee Operations



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Adaptive Protocols for Lake Okeechobee Operations

Lake Okeechobee is the heart of the Central and Southern Florida Flood Control Project and an interconnected regional aquatic ecosystem. It has multiple functions, including flood protection, agricultural and urban water supply, navigation, fisheries, and wildlife habitat. As such, operation of the Lake impacts a wide range of environmental and economic issues. Lake operations must carefully consider the entire and sometimes conflicting needs of the Project. A new regulation schedule for Lake Okeechobee, called WSE (Water Supply and Environment), was adopted by the South Florida Water Management District (SFWMD) in July 2000. The schedule provides increased flexibility relative to earlier flood control schedules, and was specifically designed to "*optimize environmental benefits at minimal or no impact to competing lake purposes.*"

The WSE schedule tells lake managers when it is necessary to release water from the Lake for flood protection purposes. Water release decisions are determined by depth of water in the Lake, which varies with season, and by recent rainfall amounts and future climate projections. Except at extreme high water level, the schedule does not specify exact amounts of water that need to be released from the Lake. It also does not address situations where water deliveries from Lake Okeechobee may be desired to deal with water resource problems (e.g., algae blooms, high salinity that is affecting estuary biota or drinking water intakes) in downstream systems, such as the Caloosahatchee Estuary.

This document spells out in greater detail how lake managers can meet the intent of the WSE schedule. In particular, it is a tool to guide short-term operational decisions in regard to volumes of water to release from the Lake for flood control purposes and procedures to be followed for addressing Lake Okeechobee and downstream water resource opportunities. The document lays out a process, which includes quarterly input from the public, other agencies, and the SFWMD Governing Board, and weekly input from a SFWMD multidisciplinary team of water resource experts. Decisions regarding water releases from the Lake are grounded in a set of "performance measures" (indicators of ecosystem health and water supply conditions) based on science and engineering.

The key feature of decisions made under the Adaptive Protocols is that they will balance the missions of the SFWMD for water supply, flood protection, and environmental protection, and comply with the regional water supply performance projected in the Lower East Coast Regional Water Supply Plan, within the constraints of the approved WSE schedule.

Sugar Cane Growers Cooperative of Florida



POST OFFICE BOX 666

BELLE GLADE, FLORIDA

33430-0666

April 16, 2002

Mr. Henry Dean, Executive Director
South Florida Water Management District
P.O. Box 24680
West Palm Beach, FL 33416-4680

RE: Lake Okeechobee Protocols

Dear Mr. Dean:

During our forty-year history, Sugar Cane Growers Cooperative has observed and participated in every public planning process affecting the management of Lake Okeechobee. For the last ten years these have included the Lower East Coast Water Supply Plan, the WSE Lake Schedule development and approval, the Minimum Flow and Level rule, the Restudy and the implementation and refinement of the plan used to ration water to farmers during the recent period of extremely low lake levels.

The growers who make up the Cooperative depend on the Lake for irrigation during dry periods, but they also live and raise their families in the communities around the Lake, and are committed to a healthy Lake and a viable agricultural economy. We supported the adoption of the WSE schedule and still feel it is the best available guide for the management of Lake Okeechobee.

The Lake Okeechobee Protocols go beyond the boundaries of the WSE schedule and these proposed protocols encourage significant new discharges to tide that were not contemplated when the WSE schedule was adopted. This puts the water supply benefits of the schedule at risk and would appear to invalidate the environmental and economic analyses that were done to support adoption of the WSE schedule.

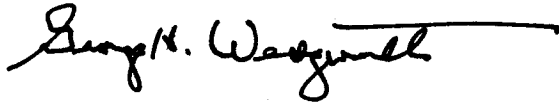
The protocols document draws an inappropriate distinction between Environmental Water Deliveries and WSE Releases. The Environmental Impact Statement for the WSE schedule considered all releases from the Lake in deciding which schedule was most appropriate. While some components of what you refer to as "Environmental Deliveries" were clearly contemplated in the WSE and LEC processes, several were not. For example, occasional releases to flush algae blooms from an estuary or to reduce salinity for the Ft. Myers water intake have always been part of Lake operations. Meeting minimum flows for salinity purposes or reducing lake stage to relieve stress on the littoral zone were never considered something you could do without addressing the impacts to other lake management goals. We do not agree that you can now address those issues through operations that were not anticipated in either of those studies.

We agree with the need to clarify the approach for defining operations in zones C and B for the estuaries and zone D for the WCAs, but do not feel you should go beyond what was evaluated in the WSE Plan without thorough documentation of the impacts and an assessment by the District Governing Board and the Corps as to whether the operations would require a formal schedule change. You are likely to have more success with the protocols, and create less anxiety for those who could be affected, if you placed more predictable limits on the range of options you are going to consider. The draft document does not do that. We also think that you will need to find a better way of communicating your decisions to the public. For something this important, posting the operations on the internet and briefing the WRAC once a quarter does not seem adequate. Affected interests should be given a meaningful opportunity to discuss potential operations with your staff before any decisions are made. The Governing Board also should be more involved in this process, especially in the early stages until the public has a better idea of what this program will really mean.

Thank you for the chance to review and comment on this document. It is our opinion that a second draft should be prepared based on these, and

other's comments, and an additional workshop be held before the concept is presented to the Governing Board for its approval. We look forward to reviewing the next draft and continuing to work with your staff on matters related to the management of Lake Okeechobee.

Sincerely,



George H. Wedgworth
President

GHW:BJM:swd
G:\Shelley\GHW letters\LO Protocol letter.doc

cc: Ms. Trudi K. Williams
Mr. Lennart E. Lindahl
Ms. Pamela Brooks-Thomas
Mr. Michael Collins
Mr. Hugh English
Mr. Gerardo B. Fernandez
Mr. Patrick J. Gleason
Mr. Nicolas J. Gutierrez
Mr. Harkley R. Thornton
✓ Mr. Karl Havens

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PLEASE REPLY TO
WEST PALM BEACH OFFICE

April 17, 2002

Dr. Karl Havens
Lake Okeechobee Dept.
South Florida Water Management District
P.O. Box 24680
West Palm Beach, FL 33416-4680

Dear Dr. Havens:

Thank you for the opportunity for the agricultural community in Western Palm Beach and Hendry Counties to comment on the development of the Adaptive Assessment Protocols for Lake Okeechobee. It is evident from reading Staff's proposals that there are opportunities to operate the Lake within the confines of WSE that provide for additional environmental benefits and do not violate the WSE schedule. The proposal can benefit greatly from the Governing Board's oversight through an Annual Management Plan such that the pro-active protection of the natural system is consistent with the Districts LEC Plan, WSE Schedule, Water Shortage, CUP Rules and CERP. My comments focus on these global issues and request clarification. As such, I am not presently providing detailed comments on the remainder for the text but will so do with the next draft.

1. Annual Plan

The issue of the operation of Lake Okeechobee was debated during the lengthy process of developing the Interim Lower East Coast Plan in 1997 and the Lower East Coast Plan in 2000. This debate was focused on the lack of a clear operational plan and what operational assumptions were provided in the models that resulted in the recommendations of the LEC Plan and CERP. Stakeholders for the agricultural, urban and environmental section voiced their concerns that there was no clear operational

plan for the system. This debate occurred to span the gap between the adoption of the LEC plan and completion of CERP.

Page 221 of the plan provides the background for periodic operational flexibility. "Operational priorities and protocols should be reevaluated on an annual basis and a specific strategy presented for Governing Board approval." The operational protocols were to be developed system wide to account for the Upper Kissimmee Chain of Lakes, the Kissimmee River, LOK, the Estuaries, and the Everglades, among the ones mentioned. The operational protocols were to provide for flexibility in both high water and low water conditions, work shopped and provided to the Governing Board for approval in advance for those which do not increase the risk of water shortages. Refer to the WSE operation guidelines where the multi-seasonal climate outlook in normal to dry. There is no discharge to tide.

The Adaptive Protocols for LOK are one part of the recommendation but they are not set forth in the context of the Annual Plan. The Annual Plan provides the Governing Board with the policy oversight of how the competing uses of the Lake will be adjusted in the upcoming year based on long-range climate forecast and real time performance measures. It provides the Governing Board with the opportunity to review the stages in the Kissimmee Basin and how they will feed LOK in the upcoming year, as well as to evaluate the health of the Estuaries, Everglades and the potential for water shortage. The Annual Plan must be consistent with the WSE schedule and the other Federal and State authorizations.

We recommend the District Staff develop the Annual Plan, which is to be presented to the Governing Board for approval. As part of that plan, the Governing Board can provide the annual direction for the Adaptive Protocols for the upcoming year. After receiving this Governing Board oversight, the operational protocols could be implemented. Hopefully, when CERP is implemented and the operational plans are on line, the yearly review can be discontinued.

2. Base Case

Key to the Annual Plan and the success of the LEC Plan is the completion of the 2000 Base Case. This is another request that the stakeholders have made for almost one year. It is key to the implementation of the Programmatic Regulations and CERP, which in turn is the program that the LEC plan has held out as satisfying the urban, agricultural and environmental water needs.

We recommend that the Governing Board direct Staff to complete the Base Case for the 2000 water needs as a priority project, before other modeling efforts are completed. This recommendation may well result in domino effects as the Adaptive Protocols require additional modeling. However, the request for the 2000 Base Case has been

delayed too long.

3. WSE Schedule

The Adaptive Protocols reference the decision tree for LOK releases. We concur that the operational flexibility of the WSE schedule allows for adjustments to be made in the timing and magnitude of Lake Okeechobee regulatory discharges based on conditions in the Lake tributary basins and in the extended meteorological and climate outlooks both for the Everglades and the Estuaries. The area of concern is whether the present WSE schedule allows for such feasibility within all or parts of Zones D - E.

Staff in its weekly review recognizes that there are no regulatory releases under Zone "E". Instead the Staff is relying on the general water supply authority, and is making environmental water supply releases from Lake Okeechobee to the Caloosahatchee Estuary to improve salinity conditions. This concept is one reason why the LEC plan recommended the requirement for the annual update with Governing Board approval. The modeling for the LEC plan as it related to water shortages was based on certain operational decisions. Those decisions cannot be fairly evaluated or compared if they are changing weekly with no policy oversight.

The Governing Board also adopted a Minimum Flow and Level for the Caloosahatchee River. That MFL was based on monthly flow of 300 cfs, when it appears the Adaptive Protocols are suggesting water be released to meet 1200 cfs. While this release may be beneficial for the health of the Estuary, the linkage between the Recovery Plan for the Estuary, based on a 300 cfs, and water supply needs of the LEC plan that did not model the release of 1200 cfs as this relates to the total overall needs of the region pre-CERP has not been clearly expressed. The rule states:

Caloosahatchee River. A minimum mean monthly flow of 300 CFS is necessary to maintain sufficient salinity at S-79 in order to prevent a MFL exceedance. A MFL exceedance occurs during a 365 day period, when: (a) a 30-day average salinity concentration exceeds 10 parts per thousand at the Ft. Myers salinity station (measured at 20% of the total river depth from the water surface at a location of latitude 263907.260, longitude 815209.296; or (b) a single, daily average salinity exceeds a concentration of 20 parts per thousand at the Ft. Myers salinity station. Exceedance of either subsection (a) or subsection (b), for two consecutive years is a violation of the MFL. Rule 40E-8.211(2) FAC.

The remedy for an exceedance was to approve a recovery plan, ie CERP.

4. Linkage

The Lower East Coast Plan provides its own set of assurances to water users. As part of that Plan, the analysis determined that a recovery plan for LOK was not needed as the MFL criteria would not be exceeded, even if the MFL criteria were implemented. The prevention strategy for the Lake, pre-CERP, included the implementation of the Water Shortage Plan, including the Supply-Side Management, as simulated in the LEC Plan.

These provisions of the LEC Plan recognized the inter-relationship between the operation of the Lake and the other programs which impact the Lake's schedule including the Water Shortage Rule, Supply Side Management and the CERP schedule. We recommend that the LOK Adaptive Protocols not be adopted until the Supply-Side Management revisions are reviewed and analyzed.

5. Additional Data

Staff should conduct the same analysis that was completed for the WSE schedule for the entire 31 year period of record, to evaluate the performance measures on the environment and users prior to Adaptive Protocols that release water in Zone "E" and Zone "D".

The above provisions focused on the Lake as a source of water for the Caloosahatchee Estuary. The Adaptive Protocols also recognize the need for water to remain in the Lake for its own resources. However, the specific performance measures for the Lake's own biological indicies are minimal at best. We recommend that the Staff, with public input, develop for Governing Board's review, specific measurable biological criteria for Lake Okeechobee which will also need a multi-season water supply indicator that includes a minimum of 2 dry seasons.

As part of the impact to water users, the Staff has developed charts showing the frequency of water restrictions for the simulation period based on a phase 1, phase 2, phase 3, or greater drought. However, for the LOSA area, the results are packaged together for any Supply Side Management event greater than 10%. Although we understand this was only for modeling purposes, this does not clearly provide the policy direction that may be needed for the Governing Board when it considers the impact of the Annual Plan on the LOSA users. Therefore, we recommend that the Staff evaluate whether impacts on the LOSA area based on the same phase 1, 2, 3, and above cutbacks, that should be clarified as reflective of the LOSA's water shortage cutbacks under Supply Side Management. We also concur that we need real time performance measures for all water users (urban and agricultural).

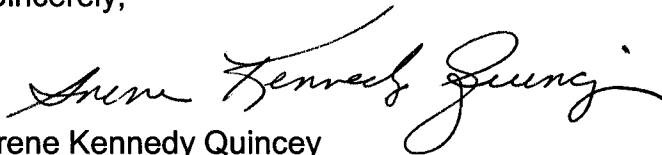
6. Overview

The document would benefit from an overview description of what the Adaptive Protocols are attempting to accomplish. The Adaptive Protocols cannot reshape the past Federal and Governing Board action. Clarification on what can be accomplished with the Adaptive Protocols should limit the debate. If we are incorrect on this assumption, then the District Staff should re-open the LEC plan as several of the significant assumptions have changed.

As stated earlier, we also have specific questions on the text of the Adaptive Protocols. However, we anticipate that staff will be providing revisions based on the comments submitted thus far in the public meetings and WRAC sub-committee. Therefore, we will provide additional comments based on the release of the next draft.

If you have any questions, please contact me.

Sincerely,



Irene Kennedy Quincey
IKQ/css

cc. Tom MacVicar
Steve Lamb
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April 15, 2002

Patricia Strayer
South Florida Water Management District
3301 Gun Club Road
West Palm Beach, FL 33406

Dear Patricia:

Audubon of Florida commends the SFWMD for developing the draft "Adaptive Protocols for Lake Okeechobee Operations." This is a significant first step in improving lake level management and benefiting downstream ecosystems. Overall, this document has the ingredients to effectively balance the needs of people and the environment.

Introduction

Audubon acknowledges that CERP is going to provide greater flexibility in the future, which will take pressure off the Lake, and we are providing input into those project processes. In the interim, the SFWMD and Corps have replaced the harmful "Run 25" schedule with the WSE regulation schedule, which remains short of CERP goals, but provides more opportunity to balance management needs for both water supply and environmental value. Consistent with the WSE schedule and its authority, there is additional short-term flexibility that can improve lake health and we understand that the Adaptive Protocols for Lake Okeechobee Operations are an attempt to provide that short-term flexibility. These Protocols simply elaborate on that authority for environmental releases, without changing the WSE schedule. In that spirit, we provide the following comments on the Adaptive Protocols and request an opportunity to discuss these comments with you in further detail.

Generally, the Protocols provide flexibility to improve short-term decision making for the health of the lake. We still need some clarification on how several aspects of the Protocols will operate. Specifically, our recommendations include:

1. A standing WRAC subcommittee should be established to discuss Lake Okeechobee issues separately from the quarterly WRAC meetings so that WRAC and non-WRAC members, including a Lake Okeechobee tourism industry representative, interested in Lake Okeechobee issues can exchange ideas in an open forum. To this date, this has been completed.
2. The quarterly forecasts to the Governing Board should be based on a range of predicted conditions for the quarter and the decisions on the Adaptive Protocols for the coming quarter should be flexible to accommodate changing conditions.
3. There should be clarification about possible limitations on the ability to release water for environmental deliveries.
4. A definition for biological success must be developed including a list of specific biological attributes for Lake Okeechobee, (e.g., a five year running average of 40,000 acres of submerged vegetation of which 20% is vascular).
5. Table 6 on page 27, for Caloosahatchee deliveries should be expanded to include a similar matrix for the Everglades Protection Area, and the St. Lucie Estuary.

Process Issues

It is our understanding that the following process has been formulated to govern the Adaptive Protocols. Consultation occurs between the Water Supply, Watershed Management, Operations Control and a representative of the Office of Counsel. Once consensus is achieved, the Director of Operations Control will convey staff's recommendation to the Deputy Executive Directors of Water Resources Management and Public Works. This is the level where the actual decision is made on the releases, with necessary consultation by the Executive Director. Public notification of the release is then posted on the web.

Recommendation: Audubon suggests that staff should present the described After Action report at the next Governing Board meeting to provide an opportunity for public and Board comment.

Quarterly WSE meetings, as recommended in the LECRWSP, will now take place at the WRAC. While this provides opportunity for diverse stakeholder input, not all stakeholders are members of the WRAC. Non-WRAC members are further limited to input during a three-minute comment period.

Recommendation: In order to provide for ample discussion between affected parties, a standing WRAC subcommittee should be convened before this quarterly WSE/WRAC meeting to allow non-WRAC members and interested parties the ability to take place in meaningful discussion. This subcommittee should include adequate representation from tourism-related industry. This committee has already been established but should continue to meet on issues other than just Adaptive Protocols.

Board meetings will include quarterly updates on the Adaptive Protocols prior to the period of decision (next 3 months), which means predictions must be used in decision making. Climate predictions can be inaccurate.

Recommendation: Board quarterly forecasting presentations should include the variety of releases that could be made under a range of predicted conditions (e.g., "given present conditions, staff should do 'A' if it is wet, 'B' if it is dry, and 'C' if weather is normal"). The need and ability of the different receiving bodies to accept environmental deliveries must be considered individually.

Audubon supports the development and presentation of a report card summary of regional performance measures related to the environment and water supply.

Recommendation: The public should be able to provide input and feedback on drafts of a standard Report Card before it is finalized (see comments in Performance Measures for specific recommendations for Lake Okeechobee Report Card performance measures).

Performance Measures

The Lake Okeechobee Performance Measures are modeled after the CERP parameters (CERP, Vol. II, pages IV-9 to IV 15). One important measure concerning the 12-foot stage has not been included.

Recommendation: A "Prolonged Low Stage Performance Measure" should be added that also mimics the CERP, such as, "The Lake should not fall below 12 feet for more than 12 months." Not meeting this parameter would keep the marshes dry for longer than desired) and it would be a water supply concern.

Performance measure scores are presented on page 19 with shaded boxes. Under "Moderate High Stage," water levels above 15 feet for both 2 and 4 months are scored with white boxes (no harm). Many wading birds, dabbling ducks, and other marsh birds require water less than 1 foot deep for feeding. When Lake Okeechobee is above 15 feet elevation, virtually none of the marsh (< 5%) is less than a foot deep.

Recommendation: Change the shading in the Moderate high stage boxes for 2 and 4 months from white, to grey, to reflect somewhat diminished habitat for wildlife.

The performance measures are limited to water level parameters. Page 18 of the document provides a discussion on Lake Biological Assessment. Biological attributes are listed including; submerged aquatic vegetation, near-shore bulrush, littoral plants, attached algae, algal blooms, etc., but specific measurable goals are lacking.

Recommendation: Audubon supports the analysis of these attributes, but without actual targets and specific measures, there is no definition of the Lake's health or management success. A definition of measurable key biological indicators/goals is necessary.

We suggest for plant community goals:

- 1) a five-year running average of 40,000 acres of submerged aquatic vegetation (SAV), with 20,000 acres vascular plants (i.e., non Chara species). Using a running average allows natural variation to occur without the need for constant corrective action.
- 2) a five-year running average of 10,000 acres of bulrush (see Lake Okeechobee Conceptual model)
- 3) a five-year running average of 10,000 acres of willows (per Tech Pub. 87-3 by Milleson).

SAVs are important for myriad fish and wildlife, and may benefit water quality and other parameters of concern. Bulrush is important for fisheries, and protecting the marsh from wave damage. Willows are important for bird nesting, and are an indicator of varying water levels.

We further suggest indicator species goals:

- 1) five-year running average of 4000 nesting pairs (not including Cattle Egrets)(per David 1994. Colonial Waterbirds 17:69-77).
- 2) five-year running average of 20 pairs of nesting Snail Kites.

These goals should be considered "draft" and other goals may be appropriate, or these numbers could be adjusted based upon technical review. We offer these as useful indicators of a healthy functioning system.

Decision Matrix

Table 6, provides key information. This table coordinates meteorological parameters with the type of release defined in the WSE schedule for the Caloosahatchee Estuary. This information is set up in a straightforward, easy-to-understand matrix.

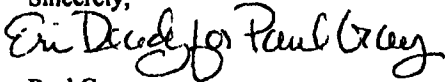
Recommendation: Table 6 matrices should be developed for the Everglades Protection Area and the St. Lucie Estuary. This matrix would be more helpful if expanded to encompass the full range of alternative receiving bodies for environmental water deliveries. This, coordinated with minimum/maximum discharges under such constraints as MFLs and the WSE regulation schedule would be very helpful to weigh all alternatives before making discharges.

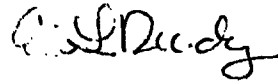
Finally, the Environmental Water Deliveries section on page 7, states, "water deliveries for resource protection will not occur if the stage of Lake Okeechobee is more than 0.5 feet below the bottom of Zone D of the WSE regulations schedule." This section also states that, "However, the SFWMD, under its authority, may determine that such releases are necessary to meet regional water supply needs, flush out algal blooms from an estuary, reduce estuarine salinity, prevent saltwater intrusion or alleviate stress of high water on the Lake's littoral zone." Further, the section states, "If a water delivery is projected to benefit downstream system(s), benefit or not adversely impact the Lake, and have minimal or no effect on agricultural or urban water supply, staff may recommend the release to senior management at the SFWMD." We are unclear on the relationship of these statements. Does this mean that no deliveries will occur once levels drop below the 0.5 foot under the Zone D line or does it mean that deliveries could occur, just under a different process, for example the decision is made at the Governing Board level? In the April 12, 2002 workshop, "Hypothetical Example 2: Low Lake Stage / Drought Conditions" was proposed where Lake Okeechobee was about 1.5 feet above the SSM line (14 feet) and the Caloosahatchee Estuary (CE) was suffering significant harm. Although no SSM allocation process was occurring and there was only a 1/4 chance that any SSM allocations would occur, staff recommends the CE receive no help. This situation, where one resource is managed to perpetuate significant harm while another is managed to perpetuate no impact, will appear unfair and unbalanced to many.

Recommendation: This section should be re-written to clarify the relationship between staff recommendations and the Governing Board decision process so affected parties will be able to adequately air their concerns.

We feel these comments, once incorporated into the Protocols document, will provide a powerful tool for short-term decision making within the WSE schedule until CERP projects come on line to provide more flexibility through increased water storage. We agree that this should be a living document that is improved as we gain experience in this new phase of Lake Okeechobee management. We look forward to continued correspondence with you on these issues and hope to continue to provide effective feedback.

Sincerely,


Paul Gray


Erin Dady

Board of Directors

April 12, 2002

F.D. "Bud" Jordan
Lawrence E. Crary, III
Stella Boland
Michael J. Brown, Jr.
Leslie Carlson
Mike Crook, C.P.A.
Matt Kelly
Timothy J. Kinane
Max Quackenbos
Edward R. Weinberg

**Ms. Patricia Strayer
South Florida Water Management District
P.O. Box 24680
West Palm Beach, FL 33416-4680**

**Re: Comments on Draft of "ADAPTIVE PROTOCOLS FOR
LAKE O. OPERATION"**

Dear Ms. Strayer:

This report is written with an extremely broad sweep. We appreciate its principal purpose is improving Lake Okeechobee management for the Lake's health, but result the treatment is on the light side for the Caloosahatchee and is even lighter for the St. Lucie Estuary.

Our questions about the report are listed below. While the Seven County Coalition may find resonance here they may have questions of their own. We hope these will result in further technical discussion with WMD staff through the technical committee being established by the WRAC and including people representing the Seven County Coalition.

QUESTIONS

- 1. Do the protocols meet the Coalition's goal of a lower Lake to help the ailing littoral zone, and a more actively managed Zone D to help restore the ailing estuaries?**
- 2. Table, 2, pg. 3 of LECWSP¹ shows ag. in Palm Beach Co. - (90% sugar) - using in 1995 770,000 A-F per year, or 66% of ag. water in 5 southern counties. This 1995 level for Palm Beach County is 12% lower in 2020, we assume due to land being placed in STA's instead of production. It would help if agriculture agreed to a 15% cut by 2010. Has this been considered? Especially as they have had improving harvests for the last 22 years.**

The same table shows public water supply rising 52% from 1995 to 2020. Do we understand that this increase comes entirely from local supplies?

¹ Lower East Coast Water Supply Plan



Ms. Patricia Strayer
South Florida Water Management District
April 12, 2001
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Otherwise their population growth, if based on expanded Lake supply, would be at considerable environmental expense.

3. Table 3, pg. 22, of Protocol Report gives 3 performance measures (PM) for the St. Lucie Estuary. This table is so skeletal and the report comment so brief that it raises more questions than it answers:
 - For lower flow is the PM of <350 CFS from runoff and groundwater?
 - For estuary protection at >2000 CFS should it be <2000 as the text suggests? From the Lake? Zones C,D? Partly to avert higher Lake discharges, partly to maintain salinity envelope? How do lower flows correlate with minimum flows and levels under current preparation?
 - For high discharge, >3000 CFS, we get 5 events over 31 years. How many total days or months, and what is range of flow in acre-feet?
4. Table pg. 27 applies only to S-79 on Caloosahatchee. No similar info for S-80?
5. Performance levels for littoral zone - A June 1 Lake stage at or below 13.5 ft. is desirable for Lake health, but action is uncertain? (Pg. 19) Poor definition of stages between 14 and 15? We have always liked a median level of 14.0 for a healthy litt zone - ref. WMD report 88-5, Trimble and Marban. Paul Gray also likes 14 from his bird studies - median levels (50% of levels above, 50% below).
6. Apparently diversions south not considered, pg. 39? Why? If waters were discharged south from the Lake for water supply - especially in drier times - instead of being thrown away down via the St. Lucie River we would see more supplies to ag., utilities, and Everglades Natl. Park and the Lake would be kept a bit lower for litt zone benefit. We should ask for modeling?
7. The information handed out at the WRAC meeting in conjunction with the Adaptive Protocol discussion included significant modulation of Kissimmee Basin discharges. Is a model running with an appropriate period of record showing how these modulations affect Lake Okeechobee? A stronger

Ms. Patricia Strayer
South Florida Water Management District
April 12, 2002
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connection to this major water source into the Lake and its management in conjunction with the Protocol would be most welcome.

Good elements in WSE:

- Flexibility, if well handled.
- Use of high Lake releases in Zone D when forecast is for very wet weather ahead. These would reduce eventual Zone A releases.
- Excellent treatment of environmental factors, but not sure that the principles are fully translated into protocol actions.

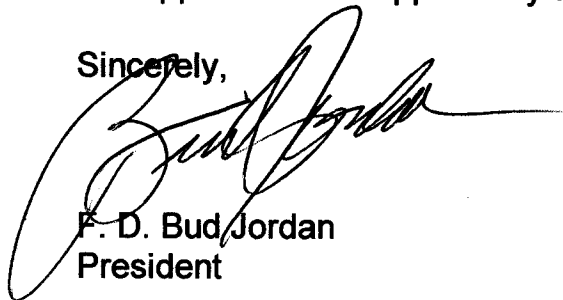
Summary

The proposed Adaptive Protocol is long on rationale and promise, short on implementation details. We appreciate the difficulty of incorporating climatic and water supply variables into a concrete schedule which also protects the Lake and Estuaries, and thus support the Protocol as proposed and recommend it become operational guidance within WSE.

At the same time, we encourage the proposed WRAC Lake O advisory committee to become strong and well informed on the inevitable compromises the District must make as time goes by and the Protocol is implemented, as part of a public view into the process.

We appreciate this opportunity to comment.

Sincerely,

A handwritten signature in black ink, appearing to read "Bud Jordan", with a large, sweeping flourish extending from the end of the signature.

F. D. Bud Jordan
President

C: Henry Dean, Executive Director



Public Works Department — Office of Environmental Services

Water Management Division2555 W. Copans Road
Pompano Beach, FL 33069

(954) 831-0751 • FAX (954) 831-3285

April 15, 2002

Mr. Henry Dean, Executive Director
South Florida Water Management District
3301 Gun Club Road
West Palm Beach, FL 33416-4680

**Subject: Comments on Draft Adaptive Protocols for Lake Okeechobee Operations
and Draft Lake Okeechobee Supply Side Management Plan**

Dear Mr. Dean:

Thank you for the opportunity to comment on the Draft Adaptive Protocols for Lake Okeechobee Operations and the Draft Lake Okeechobee Supply Side Management Plan. Operation of Lake Okeechobee impacts a wide range of activities within the South Florida Water ecosystem, including the Lower East Coast urban areas. We understand the necessity of optimizing the benefits of the Lake's resources for the various users but we are concerned that the draft Protocol and Plan severely impacts both the environmental and potable components of urban water supplies. The following comments indicate the major areas of our concern for which we are requesting additional information.

Draft Adaptive Protocols for Lake Okeechobee Operations

Cumulative Effects of Protocols and Other Initiatives - The proposed Protocols for Lake Okeechobee, when combined with other CERP initiatives such as the Programmatic Regulations, development of the Reservations process, the 2000 CERP Update and baseline, the Water Preserve Areas and the Supply Side Management Plan, have the potential to severely affect urban water supplies. Prior to the adoption of the Protocols, the cumulative effects of these initiatives on urban water supplies should be clearly discussed and modeled.

Allocable Volume - It appears that the allocable volume available to the Lower East Coast has been significantly decreased compared to historical availability and deliveries. Please explain how the District will continue to meet LEC drought demands without increasing the severity and frequency of water supply cutbacks.

WRDA Savings Clause - Please explain how the reallocation of source water which has historically been used to meet LEC and agricultural demands complies with the requirements of the WRDA 2000 Savings Clause.

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Mr. Henry Dean
Lake Okeechobee Protocols
April 15, 2002

WRDA Savings Clause - Please explain how the reallocation of source water which has historically been used to meet LEC and agricultural demands complies with the requirements of the WRDA 2000 Savings Clause.

Performance Measures - The scores assigned to measure the probability of adverse impacts to agriculture and urban water supplies in the performance measures appear to underestimate the risk of the several proposed scenarios. For example the WCA 3A stages located below Line 2 of the WCA 3A schedule is assigned a score of (-1) which is correlated to a low risk. In fact, this level is within the Supply Side Management Zone which poses high risks to the LEC. Similarly, low risk scores were assigned to tributary conditions during a moderate to extreme drought, during dry net inflow seasonal forecast and dry net inflow multi-seasonal forecast. Upon considering the cumulative effects of these low risk scores, the overall risk to the LEC remains low, regardless of the scenario proposed. We do not understand the consistent finding of low risk and request that the scores be reassessed to accurately reflect the risks to the urban areas. In addition, a project sequence outline that explains what must occur to achieve the next incremental performance measure improvement should be included.

Definitions - Favorable decisions to release water from the Lake beyond what is called for by the WSE will be based on the existence of environmental benefits with minimal or no adverse impact on water supply. Please define the term "minimal impact".

Draft Lake Okeechobee Supply Side Management

Frequency of LEC Use of Lake Okeechobee for Secondary Supplies - The draft Plan reiterates a statement made in the 1991 Supply Side Management Plan (1991SSMP) that the LEC urban users may only need to tap the lake as a secondary source of water every three to four years. Based on recent modeling efforts such as the LEC 1995 SFWMM and WPA 2010 Interim runs, water shortages will affect the Lower East Coast and Broward County in particular 23 out of 31 years. These shortages indicate that the LEC will need to utilize the lake as a secondary source of water more often than once every three or four years. The modeling results indicate an increasing number and duration of shortages being caused by Lake Okeechobee coupled with an increasing inability of Lake Okeechobee to recover from dry season recessions and droughts. These results do not seem to be consistent with the District's expectations for occasional LEC use of Lake Okeechobee. It is requested that the District reassess the allocation of water from the Lake and explain the increasing LEC shortages caused by the lack of water availability from Lake Okeechobee.

LEC Drought Demands - The 1991 SSMP states "*The volume of water between 11.00' NGVD and 10.0 NGVD, approximately 327,000 acre-feet, is reserved for the purpose of preventing salt-water intrusion in the Lower East Coast wellfields.*" The sample

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calculations in Section IV of the proposed Plan indicate that the initial allocable volume during the first week of the dry season for the LEC is estimated at 38,636 acre-feet under assumed conditions. This "initial volume" is approximately 12% of the 1991 estimate. Please explain why the allocable volume for the LEC was reduced by 88% while rising population continues to increase demands. Also, please provide an explanation on how this decrease in allocation will affect the urban environment and the severity and frequency of water supply cutbacks in the LEC.

The tables and sample calculations appear to indicate that Lake Okeechobee's water supply capability is limited to approximately 36% of the LEC potable water supply needs during a moderate (1-in-5 year) drought. That seems to indicate that Phase IV water restrictions would have to be implemented early in a drought to reduce the probability of more severe restrictions being imposed as the drought progressed. Whether our interpretation is correct or not, this situation requires considerable discussion and explanation.

Allocable Volume for the LEC - The proposed protocol maintains the 13 ft. trigger line established in the 1991 SSMP and the 10.5 ft. reference elevation, slightly increasing the allocable volume above that available in 1991. However, the proposed protocol increases the demands on that volume to satisfy improvements to lake ecology, environmental needs of the Caloosahatchee and St. Lucie estuaries, and environmental needs of the Water Conservation Areas and the Everglades National Park. These demands were not considered in the 1991 SSMP. In effect, the volume of allocable water has increased slightly but the demands on that volume have dramatically increased. How often does the District expect to reach the 10.5 ft reference elevation and what is the impact that that frequency of occurrence will have on the severity of cutbacks in the LEC? What is the relationship between the increasing inability of Lake Okeechobee to meet LEC needs and the reallocation of water to non-LEC uses?

Estimation of Urban Demands Based on Population - The demands listed in Table 5 of the draft Plan are based on the SFWWM 95 BSRR (South Florida Water Management Model, LEC 1995 conditions). This model run underestimated the 2020 projected population for Broward County and only accounted for permitted uses. Please revise the model using current 2000 Census population estimates and projections and incorporate other demands in the urban area which include water for salt water abatement, maintenance of canals levels and aquifer recharge.

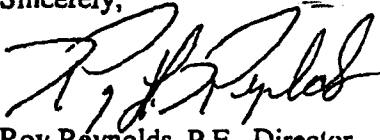
Borrowed Allocations - The 1991 SSMP allowed users to increase their current deliveries by borrowing from future allocations. Users were allowed to borrow in 1/3 monthly increments four months in advance (i.e. a user could borrow 1/3 of February's allocation in October). The new protocol does not address this practice. Please clarify whether this practice will be allowed under the new operations and if so, how will those borrowed amounts affect the ability of the LEC to meet its demands.

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Savings Clause - Please explain how the reallocation of water proposed by the Plan complies with the Savings Clause of WRDA 2000.

Thank you again for the opportunity to provide comments on the Draft Plan and Protocols. We strongly recommend that they be analyzed and adopted as a single unit to better assess their cumulative impacts and we anticipate that the cumulative effects of the various initiatives currently under consideration will be viewed more comprehensively. Should you have any questions, please don't hesitate to call me at (954) 831-0767.

Sincerely,



Roy Reynolds, P.E., Director
Water Management Division

cc: Tony Hui, OES
David Lee, DPEP

Subject: water flow from Lake Okeechobee

Date: Tue, 19 Feb 2002 15:46:04 -0500 (EST)

From: Bcntrygrlt2@aol.com

To: khavens@sfwmd.gov

I would like to voice my opinion on the water flow from Lake Okeechobee. As a person working here at Manatee World and Manatee Resource Management we have been monitoring the sea grass growth or lack there of and have a great concern for the available food for the manatee that come up the Orange River each winter searching for warmer waters. As you are aware there is little to none here this year as a result of the water not coming through as much as needed. Please come up with a solution to fix this so we can continue to see manatee in the area not just for our business but for the pleasure of the people and tourists of SW Florida.

Thank you for your time.

Joan
Executive Assistant
Manatee World, Inc.
(941) 694-4042

Subject: water levels in Caloosahatchee River

Date: Tue, 19 Feb 2002 14:38:26 -0500

From: Cathy Loyola <Cloyola@capecoral.net>

To: khavens@sfwmd.gov

Mr. Havens,

I would like to comment on freshwater releases into the Caloosahatchee River. I do not know what fresh water amount is necessary to keep the estuary functioning in a "natural" state, but I would like to strongly urge that its needs be a major deciding point for the determination. Although the system is not natural, natural freshwater releases can be mimicked for the health of the system. Please make sound resource management decisions based on the enormous amount of research that your agency has assimilated.

Thank you

Cathy Loyola

Subject: the lake

Date: Mon, 18 Feb 2002 09:12:29 -0500 (EST)

From: Fishhoover@aol.com

To: khavens@sfwmd.gov

Stay with SFWMD rules and protocols which require the freshwater flows to the Caloosahatchee/Estero estuary to keep seagrasses not only alive, but healthy, regardless of Lake Okeechobee levels. The "6" rule, no required releases of fresh water if the level of Lake Okeechobee is below 13.5', is not acceptable. The estuary needs a binding commitment to its life blood, timely releases of freshwater. We feel the effects of this all the way to the 10,000 islands and we know that it is related to the red tide phenomenon.



The Rivers Coalition

Organizations

Audubon of Florida
Audubon Society
of Martin County
Business Development Board
of Martin County
Citizens for Clean Water
Economic Council
of Martin County
Florida Sportsman
Florida Oceanographic Society
Florida Zero
Population Growth
Indiantown Chamber
of Commerce
Leadership Martin County
Alumni
Marine Industries Association
of the Treasure Coast
Marine Resources Council
Martin County Anglers
Martin County
Conservation Alliance
Martin County Farm Bureau
Martin County Golf Course
Superintendents
Martin Soil & Water
Conservation District
North River Shores Property
Owners Association
Palm City
Chamber of Commerce
Palm City Civic Association
Port St. Lucie Anglers
Realtor Association
of Martin County
St. Lucie River Initiative
Stuart Heritage
Stuart/ Martin County
Chamber of Commerce
Stuart Rod & Reel Club
Treasure Coast
Builders Association

April 23, 2002

Mr. Henry Dean, Executive Director
& Governing Board Members
South Florida Water Management District
West Palm Beach, FL 33416-4680

Dear Mr. Dean and Board Members:

On behalf of the Rivers Coalition, I would like to express our strong support for the SFWMD's draft "Adaptive Protocols for Lake Okeechobee Operations."

The Rivers Coalition previously adopted a resolution that the SFWMD and CORPS manage Lake Okeechobee between the levels of 13.5 to 15.5 feet. Adaptive Protocols provide a sound framework for a more balanced management of our natural systems, while protecting our water supplies. As envisioned in the document, we think that it should remain a "living document" and be updated and be improved as more experience is gained.

As you know, the Rivers Coalition is a diverse organization made up of 29 businesses, environmental and civic groups comprising of more than 100,000 Floridians, primarily in the Treasure Coast/Martin County area. Our precious natural resources - the St. Lucie River Estuary, Indian River Lagoon, and Lake Okeechobee - are the life-blood of our economy and we commend you for your ongoing efforts to improve your management of them.

Sincerely,

Leon Abood
Chairman

43 SW Monterey Road, Stuart, Florida 34994
Phone: 561 283-1748 Fax: 561 288-0215

**World Wildlife Fund &
Environmental & Land Use Law Center, Inc.**

VIA FACSIMILE

April 25, 2002

Mr. Henry Dean
Executive Director
South Florida Water Management District
3301 Gun Club Road
West Palm Beach, FL 33406

Dear Mr. Dean:

On behalf of World Wildlife Fund and Environmental and Land Use Law Center, we would like to express our appreciation of the District staff's efforts to develop the draft, "*Adaptive Protocols for Lake Okeechobee Operations*". We support the proposed adaptive protocols as an important first step in improving the management of Lake levels and optimizing environmental benefits to downstream ecosystems. Recognizing that the adaptive protocols are intended to be a "living document" subject to future refinement, we urge the District to strive to improve the protocols as further information becomes available to better enable the District to achieve a true balance between environmental and water supply demands. We thank you for this opportunity to present written comments that we hope you will consider as you undertake the difficult responsibility of balancing these diverse and often competing Lake interests.

Comment 1

The specific design of the adaptive protocols, as stated, is to "*optimize environmental benefits at minimal or no impact to competing lake purposes.*" However, the term water supply is too broad, creating the possibility that virtually any option available to the staff under these protocols could be interpreted as impacting a competing lake purpose.

Recommendation 1

Clearly define "water supply" consistent with water management district policy, statutes, and rules. This could be elaborated through a graphic or table.

Comment 2

Application of the Adaptive Management Protocols requires District staff to meet weekly to balance the protection of water supply and the protection of the natural system. It is therefore critical to have an open and accessible decision making process.

Recommendation 2

The public should be permitted to observe the meetings where this balancing occurs. Alternatively, minutes or some other record of such meetings that describe the decision making process and how competing demands were balanced, should be prepared and be made available to the public via the internet as soon as practicable following the meetings. The current WRAC Lake Okeechobee subcommittee should be officially instated to meet at regular intervals to discuss Lake Okeechobee issues openly and separately from the quarterly WRAC meetings so that WRAC and non-WRAC members can participate in the process.

Comment 3

The creation of a report card summary to provide a regional performance related to the environment and water supply is an important and necessary step (pg. 11).

Recommendation 3

The public should be provided with an opportunity to present input and feedback on drafts of a standard report card before it is finalized. This could be done through the sub-committee of WRAC, as not all stakeholders are members of the full WRAC.

Comment 4

Adaptive Protocol reports given to the Board prior to their three-month period of decision depend on climate predictions. These predictions can be inaccurate.

Recommendation 4

Board quarterly forecasting presentations should include a variety of releases that could be made under a range of predicted conditions. It is also critical for the Board to consider the ability of the receiving bodies to absorb recommended releases; and to the greatest degree feasible, authorize lower volume releases earlier, to reduce the need for large-scale releases, which are damaging to downstream ecosystems.

Comment 5

Predicting and forecasting the severity of an impending drought prior to its onset is a difficult and often inaccurate science. Pg. 24 states "Prior to severe droughts, it is critical to regions dependent on Lake Okeechobee for water supply that water levels be slightly higher than is normally desirable for the littoral zone. Evaluating water use needs from past droughts, the desirable water level for water supply on June 1, prior to a severe drought, approaches and may somewhat exceed 15.5 ft." The intent of this statement is unclear, as water levels considered desirable for the littoral zone on June 1st would be at or below 13.5 ft. Levels exceeding 15.5 feet on June 1st would be significantly higher than what is considered desirable for the littoral zone and would fall within zone C of the WSE regulation schedule, and even under extreme drought conditions, would call for releases of up to 300 cfs at S-79.

Recommendation 5

This statement should be removed as its intent and purpose is unclear, and it appears inconsistent with the goals of the adaptive protocols and with WSE.

Comment 6

Lake Okeechobee Performance Measures are limited to water level constraints. On page 18, in the section entitled, *Lake Biological Assessment*, it is written that the District will monitor key biological indicators such as: submerged aquatic vegetation, near-shore bulrush, littoral plants, etc., but specific measurable targets for these biological parameters are not included in the document.

Recommendation 6

We urge the adoption of Audubon of Florida's recommendation of a five year running average of key biological targets, such as:

Plant Community:

- 40,000 acres of submerged aquatic vegetation, with 20,000 acres vascular plants
- 10,000 acres of bulrush
- 10,000 acres of willows

Indicator Species:

- 4,000 nesting bird pairs
- 20 pairs of nesting Snail Kites.

Using a running average allows natural variation to occur in the system.

Comment 7

Table 6, provides some key information on discharges that could be made in the WSF schedule.

Recommendation 7

Tables such as this should be developed for the Lake's littoral zone, the estuaries, and the Everglades Protection Area. This could clarify difficult issues for managers and foster a more transparent process for stakeholders and the public.

Comment 8

The Environmental Water Deliveries section on page 7, states, "water deliveries for resource protection will not occur if the stage of Lake Okeechobee is more than 0.5 feet below the bottom of Zone D of the WSE regulations schedule." This section also states that, "However, the SFWMD, under its authority, may determine that such releases are necessary to meet regional water supply needs, flush out algal blooms from an estuary, reduce estuarine salinity, prevent saltwater intrusion or alleviate stress of high water on the Lake's littoral zone." It goes on to say, "If a water delivery is projected to benefit downstream system(s), benefit or not adversely impact the Lake, and have minimal or no effect on agricultural or urban water supply, staff may recommend the release to senior management at the SFWMD." The relationship of these statements is unclear.

Recommendation 8

Clarify whether or not deliveries will occur once levels drop below the 0.5-foot under the Zone D line. Also clarify how the MFL's for the receiving water bodies will be implicated by the implementation of the Adaptive Protocols. Specifically, it appears inappropriate that Caloosahatchee Estuary MFL's could be exceeded multiple years in a row, causing significant harm, in order to avoid causing minimal or any impact to water supply. Additional explanation is needed to explain the District's basis for its premise that MFL's may be exceeded or violated in order to prevent even minimal chances of impacts to water supply. This is particularly important with regard to the Caloosahatchee MFL, as it appears from Figure III-2 (p. 62) that making supplemental releases to the Caloosahatchee has only the most minimal or no impact on Lake levels. Staff should have the discretion to make environmental releases as needed to prevent violations or exceedence of downstream MFL's. It is also vital that affected parties understand and voice their concerns on this issue.

Comment 9

The document does not adequately explain the nexus between the requirements of WSE and the District's water shortage and consumptive use permitting rules. For example, it is not clear how or if the District staff determines the level of certainty being provided to users by a particular Lake level management decision.

Recommendation 9

The document should explain the relationship between level of risk faced by users and level of certainty provided to users. In addition, the document should include some discussion of how the implementation of the adaptive protocols complies with the water shortage and consumptive use permitting rules of the District.

We understand that other stakeholders have raised arguments that the adaptive protocols are flawed for a variety of reasons. Two of the most common reasons stated are that the protocols are inconsistent with WSE and that they violate the Savings Clause of WRDA 2000. It is our understanding from staff, that the protocols were very specifically developed within the discretionary parameters allowed by WSE. These protocols are merely intended to spell out how that discretionary authority will be exercised. The Savings Clause of WRDA 2000 is irrelevant to the subject of Adaptive Protocols for Lake Okeechobee, as WRDA 2000 applies to the implementation of CERP. The protocols are not part of CERP and are therefore not governed by the Savings Clause.

Thank you for the chance to voice concerns and comments on the draft *Adaptive Protocols for Lake Okeechobee*. The Adaptive Protocols will provide important information about how the District exercises the discretionary authority granted to it by the WSE operation schedule. We look forward to the Governing Board approving the protocols as soon as possible, so they may be implemented throughout this year's upcoming rainy season.

Sincerely,

David Bogardus
Representative
Everglades Program
South Florida Ecoregion
World Wildlife Fund
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Hollywood, FL 33020
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F (954) 921-7810

Shannon Estenoz
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Lisa Interlandi
Regional Counsel
Environmental & Land Use Law Center, Inc.
Treasure Coast Office
224 Datura Street, Suite 201
West Palm Beach, Florida 33401
T (561) 653-0040
F (561) 653-0041

(Signatures waived to expedite delivery.)

cc:
Dr. Karl Havens
Governing Board Members



FLORIDA WILDLIFE FEDERATION

Affiliated With National Wildlife Federation

Manley K. Fuller, III, President
2545 Blirstone Pines Drive, Tallahassee, FL 32301
Post Office Box 6870, Tallahassee, FL 32314-6870

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Fax: (850) 942-4431
e-mail: wildfed@aol.com
website: www.flawildlife.org

April 29, 2002

Mr. Henry Dean
Executive Director
South Florida Water Management District
3301 Gun Club Road
West Palm Beach, FL 33406

Dear Mr. Dean:

Florida Wildlife Federation wishes to acknowledge and commend the staff of the Watershed Management Division for a thorough and professional discussion of past ecological damages caused to Lake Okeechobee, the St. Lucie and Caloosahatchee Estuaries by District water supply policies. These portions of the draft Adaptive Protocols for Lake Okeechobee Management could not have been better explained or scientifically documented.

Florida Wildlife Federation certainly supports the idea of adaptive management protocols that would actually reduce damages caused by District water supply policies and we appreciate this draft as a beginning step toward that end. The Adaptive Management Protocols do mitigate the serious environmental damage caused by waiting until the lake is so full that incoming water threatens dike safety and then dumping water to the estuaries at maximum rate. For that we are grateful. The other Protocols are so conditioned on near-certain predictions or actual surplus of water that it does not seem likely that they will be applied often. One particularly disturbing example is the idea that a desirable water level on June 1st may exceed 15.5 ft. If 15.5 ft. is the depth at the end of the dry season, it is certain that a great deal of damage has been done to the littoral zone. While the fish and wildlife habitat affected by Lake Okeechobee Management is better off with these Protocols than without them, the Federation is concerned that the natural system benefits of these protocols may be more illusory than real.

Past damages to fish and wildlife habitat were caused by an institutionalized policy that has persisted year after year, through administration after administration, since the inception of the South Florida Water Management District. In this policy, zeroing out the risk to agricultural irrigators completely dominates every other public interest in the management of depth in Lake Okeechobee. This policy, with its attendant damages to habitat, not only remains in place, but also is articulated and codified in the draft Adaptive Management Protocols. It is as though the unseen hand of the sugar industry wished to

ensure that the District would never again make a decision in favor of protecting fish and wildlife habitat as it did in the year 2000 planned recession.

In the draft Adaptive Management Protocols, as in many other documents, the staff is carrying a lot of baggage for the sugar industry. It is well known that the Corps' principal concern is dike safety, which is euphemistically called "flood control." The remainder of the lake stage management is more or less at the District's discretion. In other words, the US Army Corps of Engineers does not require the District to destroy fish and wildlife habitat to eliminate drought risk for the sugar industry. It appears that the District caused the conditions of the Decision Tree to be made a part of the WSE regulation schedule at the request of the sugar industry. It also appears that the sugar industry is the origin of many of the water supply conditions in the draft Protocols. The Adaptive Management Protocols begin with a flawed premise about the inviolability of what is vaguely defined as "water supply" and argue, falsely we believe, that the US Army Corps of Engineers requires it through the WSE. To its credit, the Corps has never claimed that natural systems should be destroyed to eliminate any risk of reduced crop yield from drought for the sugar industry.

For all of the talk by the staff about "balance" and "shared adversity" in the Protocols and elsewhere, this is a very biased Lake Okeechobee management regime in which the sugar industry simply has no adversity to share. All damages fall to fish and wildlife habitat and the small businesses that depend upon the recreational quality of Lake Okeechobee and its adjoining estuaries.

Florida Wildlife Federation understands that we have a political process for deciding whose values will prevail in any given situation and we honor this democratic process. The problem we see is that the process breaks down when the District speaks for the sugar industry and serves its interests so single-mindedly. Of necessity, the Governing Board relies on the staff. The public interest is obscured when there is a constant stream of technical and legal talk that is designed to make it look like staff/industry recommendation is the only possible choice. In this circumstance, for the Governing Board to sort out the issues and see other points of view is like trying to drink from a fire hose.

What the Federation asks of you, as Executive Director, is fair treatment by the staff in its documents and Board presentations for our interests in fish and wildlife habitat and recreational quality. We know that the Federation must compete in the politics of values, but we don't think we should have to overcome District bias to do this. We ask that you and your staff explain to the public and the Board in a straightforward way what the choices really are between zero drought risk to the sugar industry and protection of the lake and estuaries. We also ask that you direct the staff to make clear the distinction between agricultural and urban water supplies and the quite different effects of their respective drought reserves on fish and wildlife habitat in the lake and estuaries.

We especially ask that you direct your staff to make completely transparent to the public each and every assumption and uncertainty in the quantification of "demands not met" for crop irrigation because this critical value lies at the center of Adaptive Protocol decision making.

The Federation believes that there are techniques to provide complete protection for the urban areas, reasonable levels of drought protection for the sugar industry and far greater protection to fish and wildlife habitat than do the draft Adaptive Management Protocols. We would like to work with you and your staff and the sugar industry to bring these techniques to fruition. The District is a marvelous institution with a talented staff and enough funding to really serve the public. It has served the public well for flood control and water supply. It has the potential to serve the public well in protection of fish and wildlife habitat and the outdoor recreation industry in Lake Okeechobee, the St. Lucie Estuary and the Caloosahatchee Estuary. With everyone's cooperation, we can truly bring protection of these important public resources into balance with flood control and water supply.

Sincerely,

Manley K. Fuller, III
President

Paul C. Parks, Ph.D.
Lake Okeechobee Project Director

Glades County

**ECONOMIC DEVELOPMENT
COUNCIL, INC.**

April 25, 2002

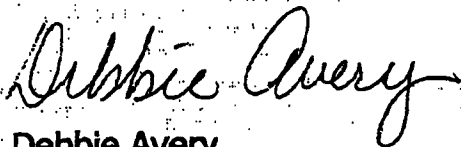
6534
Karl Havens
South Florida Water Management District
3301 Gun Club Road
West Palm Beach, FL 33406

Dear Mr. Havens,

This is in support of the "Adaptive Protocols for Lake Okeechobee Operations". I feel that this is a step in the right direction for all concerned that depend on the lake for their livelihood and life.

The health of Lake Okeechobee should be number one priority. With that will come a healthy business economy around the lake, both tourism and agriculture. It should be up to coastal urban areas to look to desal for their future water needs. Desal is not an option inland.

Sincerely



Debbie Avery
Director

(and Secretary/Treasurer of LOBOS/Lake Okeechobee Business Owners & Supporters)

PO BOX 1003, MOORE HAVEN, FLORIDA 33471

863-946-0300/946-0777 (FAX)

info@gladescountyedc.com www.gladescountyedc.com



SERVE • CONSERVE

April 25, 2002

Mr. Henry Dean
Executive Director
South Florida Water Management District
P.O. Box 24680
West Palm Beach, FL 33416-4680

Dear Mr. Dean:

Thank you for the opportunity to provide comments on the Draft Adaptive Protocols for Lake Okeechobee Operations.

As a stand-alone initiative, the Protocols, as proposed, may prove beneficial to the biological performance measures suggested by the document. In the context of WRDA 2000, the draft Programmatic Regulations and the draft Water Preserve Areas Feasibility Study, however, the Adaptive Protocols cannot be supported by Miami-Dade County, at this time. We believe that they are premature and not ready for consideration until the WPA project and federal Programmatic Regulations are finalized and their effects fully understood.

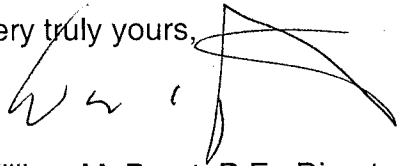
Lake Okeechobee is an "existing legal source of water", as the term is used in WRDA 2000 and the draft Programmatic Regulations, for the entire LEC and Miami-Dade County, in particular. The Water Preserve Areas Feasibility Study, as currently proposed, would increase Miami-Dade's legal reliance on the Lake by shifting regional water from the Water Conservation Areas away from current patterns toward use by the natural system. The Savings Clause clearly prohibits such a shift unless water of a comparable quantity and quality is made available. The proposed Adaptive Protocols would retard the District's ability to provide sufficient regional water resources from the Lake to meet reasonable, beneficial uses in the Lower East Coast service areas, or even the quantity required by the Savings Clause, during the next dry season and into the future. It is likely that adopting the proposed Protocols would ultimately result in an actual reduction in the regional water resources from the Lake that the District can make available,

Mr. Henry Dean
April 25, 2002
Page 2

which Miami-Dade Water and Sewer then taps for local water supply purposes. As a result, Miami-Dade County cannot support consideration or adoption of the Lake Okeechobee Adaptive Protocols, at this time.

Please feel free to call me (786) 552-8086 should you wish to discuss these concerns.

Very truly yours,

A handwritten signature in black ink, appearing to be 'W. Brant', with a large, sweeping flourish extending to the right.

William M. Brant, P.E., Director
Miami-Dade Water and Sewer Department

WMB/BD/gm

FILE COPY

ERIC ANN
W.O. BIRCHFIELD
JOBY LANE BROOKS
WILLIAM C. CAPKO
BETH ANN CARLSON
MICHELLE DIFFENDERFER
ROBERT P. DIFFENDERFER
KENNETH W. DODGE
AMY M. DUKES
BRENNA MALOUF DURDEN
RUSLYNN M. FERGUSON
WAYNE E. FLOWERS
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REPLY TO: West Palm Beach

February 13, 2002

Trudi Williams, Chair
Governing Board
South Florida Water Management District
3301 Gun Club Road
P. O. Box 24680
West Palm Beach, FL 33416-4680

**Re Lake Okeechobee issues affecting the Seminole Tribe of Florida's
Brighton and Big Cypress Reservations**

Dear Ms. Williams:

I am writing on behalf of the Seminole Tribe of Florida (Tribe) to remind the South Florida Water Management District (District) of its responsibilities to the Tribe regarding the management of Lake Okeechobee. Lake Okeechobee serves as the source of the Tribe's entitlement for the Brighton Reservation (Brighton) and the Big Cypress Reservation (Big Cypress) pursuant to the Water Rights Compact amongst the Seminole Tribe of Florida, the State of Florida, and the South Florida Water Management District (Compact) and its implementing agreements. The Tribe is aware that there are actions that the District has taken in the past and is considering undertaking in the future which could negatively impact the District's ability to deliver the entitlement for each reservation.

Specifically, the Tribe questions how the WSE Regulation schedule and the proposed discretionary operational protocols will affect the District's ability to deliver its entitlement for both Brighton and Big Cypress. Moreover, the Tribe is concerned that the District may act

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prematurely by setting a reservation of water for protection of the Lake Okeechobee environment now which would also adversely affect the District's ability to deliver the entitlement for Brighton.

Management decisions by the District affecting the 2000-2001 dry season resulted in the loss of approximately 400,000 acre-feet of water storage from the Lake which adversely impacted the Tribe's ability to withdraw its entitlement for Brighton. See Lake Okeechobee Managed Recession and After Action Report and Priority Action Plan dated November 3, 2000 at AA-9. These decisions potentially included implementation of the Lake Okeechobee Managed Recession in April 2000, and implementation of the WSE Regulation schedule in July 2000. The District did not fulfill its obligations to the Tribe under the Water Rights Compact and its implementing agreements when making these decisions. The results were a severe water shortage for Brighton. The Tribe does not want history to repeat itself as the discretionary release operational protocols are developed and adopted; it expects the District to fulfill its responsibilities to the Tribe.

Specifically, by this letter, the Tribe puts the District on notice that the District is required to mitigate impacts to Brighton's water supply resulting from the implementation of the WSE regulation schedule and the discretionary release operational protocols. See Agreement between the South Florida Water Management District and the Seminole Tribe of Florida providing for Water Quality, Water Supply and Flood Control Plans for the Big Cypress Seminole Indian Reservation and the Brighton Seminole Indian Reservation Implementing Sections V.C. and VI.D of the Water Rights Compact (Agreement) at Section D.4. The Agreement requires the District to preserve the Tribe's ability to obtain surface water supplies for Brighton based on the operations, rules and regulations of the District that were in place as of November 30th, 1992. Before deviating from the operations, rules and regulations in place as of November 30th, 1992, the District must evaluate the extent to which such deviations will affect water supply on Brighton and mitigate any adverse impacts to water supply which are not acceptable to the Tribe. The Tribe expects the District to work with the Tribe to determine whether implementation of the WSE schedule has impacted and whether the discretionary protocols will impact the Tribe's ability to withdraw its entitlement, and if so, develop and implement a mitigation plan for such impacts.

The Tribe is also concerned that the WSE regulation schedule and the discretionary release protocols will affect the operation of the G-409 pump station. The District constructed G-409 to mitigate for the loss of access to water resources on the Reservation resulting from the construction of STA-5. Since the source of water for the G-409 is Lake Okeechobee and runoff from the Everglades Agricultural Area (EAA), the Tribe is concerned that the WSE schedule and implementation of the discretionary release protocols will adversely affect the District's ability

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to deliver the entitlement for Big Cypress. Also, operational activities not under the District's direct control in the EAA may affect the pass through of surface water from the Lake in a declared drought that could affect delivery of the entitlement for Big Cypress.

The Tribe also understands that the District may be considering setting a reservation for protection of the Lake Okeechobee environment. It is the Tribe's position that setting a reservation constitutes a change in the state system affecting preference or priority of water use for which the Tribe must be given an equal preference or priority. Compact at III.A.1. Further, the Tribe believes that the environmental needs on the Big Cypress and Brighton Reservations should receive an equal preference to the environmental needs of Lake Okeechobee. We believe that setting such reservation at this time is premature and violates the water supply planning process set forth in the May 2000 Lower East Coast Water Supply Plan (Plan).

The reservation of water contemplated in Fl. Stat. Ch. 373.223(4) cannot be implemented until the appropriate scientific studies have been completed and adopted, and the necessary water resource development projects to support the water reservation are in place as set forth in the Plan. Plan at 224. The District recognized that this would be a long term process and adopted the Minimum Flow and Level for the Lake in September 2001 to protect the Lake from significant harm. The MFL establishes appropriate resource protection for the Lake until the components of the Comprehensive Everglades Restoration Plan (CERP), which the Plan relies on to support the water reservation for the Lake, are operational. It is not until these CERP projects are complete that water will be made available in the appropriate quantity and timing, and with the appropriate quality, to support the water reservation.

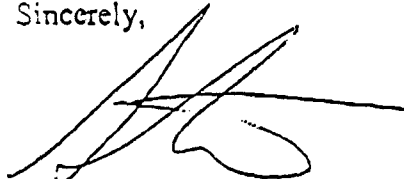
In accordance with the Compact and implementing agreements, the Tribe expects the District to fully evaluate the effect on Brighton water supply resulting from any water reservation for Lake Okeechobee. Further, the Tribe expects the District to fully mitigate any adverse impacts on Brighton water supply before the District establishes any water reservation for the Lake. Since a reservation would set aside water for the environment and consequentially reduce the amount of water in the Lake available for consumptive uses, the District is required to ensure that the availability of water for Brighton is not diminished per the Agreement. The District will also be required to establish a preference or priority of environmental water use for the Tribe.

The Tribe and the District have worked closely together to develop a constructive relationship under the Compact. We believe that there is much to be gained through continued cooperation. In the past when we have had disagreements over resource issues, we have been able to work out practical solutions that achieve both parties' objectives. The Tribe does not enter into such relationships lightly, and expects the spirit and intent as well as the letter of our mutually agreed to promises be met. We look forward to working with your staff on these

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issues. If you have any questions, please contact Craig Tepper, Director, Water Resources Management Department at (954) 967-3402.

Sincerely,



Stephen A. Walker

- c. Lennart E. Lindhal, Governing Board Vice-Chair - SFWMD
- Michael Collins, Governing Board Member - SFWMD
- Hugh English, Governing Board Member - SFWMD
- Pamela Brooks-Thomas, Governing Board Member - SFWMD
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- Patrick Gleason, Governing Board Member - SFWMD
- Henry Dean, Executive Director - SFWMD
- Mitchell Cypress, Acting Chairman, Seminole Tribe of Florida
- Jim Shore, Esquire, Seminole Tribe of Florida
- Craig Tepper, Seminole Tribe of Florida